



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,827	09/18/2001	Jurgen Valentin	VALENTIN AL -1(PCT)	1575

25889 7590 06/25/2003

WILLIAM COLLARD
COLLARD & ROE, P.C.
1077 NORTHERN BOULEVARD
ROSLYN, NY 11576

EXAMINER

CRUZ, MAGDA

ART UNIT PAPER NUMBER

2851

DATE MAILED: 06/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/936,827

Applicant(s)

VALENTIN ET AL.

Examiner

Magda Cruz

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 September 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show “a measuring sensor and a specimen to be detected... displaced in relation to each other in the x-y directions”, “laser spot sensor”, “PC”, “microcontroller”, “optically operating sensor”, “position transmitter”, “interval sensor arranged above a surface of the specimen and a specimen carrier” as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “a measuring sensor and a specimen to be detected... displaced in relation to each other in the x-y directions”, “laser spot sensor”, “PC”, “microcontroller”, “optically operating sensor”, “position transmitter”, “interval sensor arranged above a surface of the specimen and a specimen carrier” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "1" and "3" has been used to designate both "displacement element" (on Claims 17) and "sensor (1)", "table (3)" (on the specification). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

4. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Objections

5. Claim 14 is objected to because of the following informalities: there is an extra parenthesis on line 11. Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 13-18 and 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott.

Scott (US Patent Number 6,031,928) discloses a method for measuring particularly surface topologies with microscopic resolution (column 2, lines 31-34), in which a measuring sensor (130) and a specimen (140) to be detected are displaced in relation to each other in the x-y directions (column 2, line 36), whereby the displacement movement is controlled by means of a controller recording the values measured by the sensor (column 2, lines 43-49), whereby the sensor is read out at defined intervals after the sensor and the displacement movement have been started and individual detected profiles (column 2, lines 40-43), which are locally offset from each other in a dimension extending perpendicular to the direction of the profile (S1), are combined so as to form a measured area after the measurement has been completed (S5), characterized in that via a software instruction (13), the displacement control is initiated to start the displacement movement (column 2, lines 54-56), position-transmitting trigger pulses are tapped in discrete and constant local intervals from the displacing element for position-related readout of the sensor (column 2, lines 39-44), derived position-related signals, which in turn are position-related, are generated from the basic signals so obtained by means of electronic data processing (column 2, lines 48-50), such derived signals serving for triggering the recording of the measured values of the sensor (column 3, lines 16-22), the measured values obtained are stored and then asynchronously transmitted to the controller (column 3, lines 22-30), the direction-dependent local increments are added up in a memory, whereby the detection of the direction takes place by means of a programming logic (column 3, lines 31-63), tapping the position-transmitting trigger pulses on the displaceable element (S2), provision is made for an

Art Unit: 2851

incremental angle encoder mounted on the axle of the motor (column 6, lines 17-22), with the direction of said encoder coinciding with the direction of displacement of the measuring profile (column 6, lines 23-30), the basic signals comprises a programmable and storing microcontroller (column 20-23), wherein the controller is a PC (160), and the sensor is an optically operating sensor (column 2, lines 16-18).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Hageniers.

Scott (US Patent Number 6,031,928) teaches the salient features of the present invention, except a glass scale. However, Scott discloses a unit (110) to determine the position of the specimen.

Hageniers (US Patent Number 4,705,395) discloses a glass scale (301).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the glass scale disclosed by Hageniers, in substitution of the unit (110) from Scott's invention, for the purpose of instantaneously reading the position of the object (column 3, lines 4-8).

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott in view of Hoffman, et al.

Scott (US Patent Number 6,031,928) teaches the salient features of the present invention, except a laser spot sensor. However, Scott discloses a linear variable differential transducer (column 2, lines 18-19).

Hoffman, et al. (US Patent Number 6,373,612 B1) discloses a laser spot sensor (column 5, lines 25-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the laser spot sensor disclosed by Hoffman, et al. in substitution of the linear variable differential transducer from Scott's invention, for the purpose of measuring the time elapsed between the beginning of the pulse and the return of the reflected energy to the receiver, the distance to the object can be calculated by using the speed of light as a constant (column 5, lines 35-38).

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Marton (US Patent Number 5,965,896) discloses an apparatus and method for scratch wear testing of thin films.

Scott (US Patent Number 6,345,107 B1) teaches an image processing apparatus and method of processing height data to obtain image data using gradient data

calculated for a plurality of different points of a surface and adjusted in accordance with a selected angle of illumination.

Altunbasak, et al. (US Patent Number 6,459,823 B2) shows an apparatus and method of increasing scanner resolution.

Bacchi, et al. (US Patent Number 5,382,806) discloses a specimen carrier platform and scanning assembly.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magda Cruz whose telephone number is (703)308-6367. The examiner can normally be reached on Monday through Thursday 8:00-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on (703)308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9318 for regular communications and (703)872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.



RUSSELL ADAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

Magda Cruz
Patent Examiner
June 21, 2003